



BASIC INFORMATION

DESCRIPTION

A blood clot that forms inside a vein. It may partially or completely block blood flow, or break off and travel to the lung. This is different from clots in superficial veins, where clots rarely break off. Usually involves lower legs (calves) or lower abdomen, but occasionally affects other veins in the body. Most common in persons over age 60.

FREQUENT SIGNS AND SYMPTOMS

- Sometimes no symptoms.
- Swelling and pain in the area drained by the vein, usually the ankle, calf or thigh. Swelling in the leg includes everything below the clot, extending to the toes.
- Tenderness and redness of the affected parts.
- Soreness or pain when walking. The soreness does not disappear with rest.
- Pain when raising the leg and flexing the foot (sometimes).
- Fever (sometimes).
- Increased heartbeat (sometimes).

CAUSES

Pooling of blood in the vein, which triggers blood-clotting mechanisms. The pooling may occur after prolonged bed rest following surgery, or from debilitating illness, such as heart attack, stroke or bone fracture.

RISK INCREASES WITH

- Persons over 60.
- Obesity.
- Smoking.
- Use of estrogen in oral contraceptives or for replacement after menopause. This is especially hazardous if estrogen use is combined with smoking.
- Surgery, trauma.
- Pregnancy.
- Cancer.
- Disorders such as heart failure, stroke and polycythemia.

PREVENTIVE MEASURES

- Avoid prolonged bed rest during illnesses. Start moving the lower limbs as soon as possible after any surgical procedure or during any bed-confining illness.
- On long auto or airplane trips, exercise your legs at least every 1 or 2 hours.
- Stop smoking, especially if you take estrogen.

EXPECTED OUTCOMES

Usually curable with anticoagulant treatment, if pulmonary embolism can be avoided.

POSSIBLE COMPLICATIONS

Pulmonary embolism, in which the clot breaks away and travels to the lung. The lung's blood supply is blocked, causing affected lung tissue to die. A significant number of people with pulmonary embolism die from this condition.



TREATMENT

GENERAL MEASURES

- Diagnostic tests may include venography (x-ray study of the veins), ultrasound, and plethysmography (measures the amount of blood passing through the limb).
- If the clots are small, confined to the calf and the patient is mobile, no treatment may be necessary. The clots often break up spontaneously.
- Hospitalization is required for most patients for anticoagulant injections and observation for complications.
- For certain patients, a surgical procedure to insert a filtering device ("umbrella") into the vena cava (main vein to lungs) to trap clots before they reach the lungs.

MEDICATIONS

- Intravenous anticoagulant to prevent the extension of the clots.
- Thrombolytic drugs which actively dissolve the clots may be prescribed.
- To minimize the danger of pulmonary embolism, blood tests to monitor the anticoagulant level are mandatory. Oral anticoagulants may be necessary for 6 months or longer.

ACTIVITY

- Rest in bed until all signs of inflammation have disappeared. While resting, make it a habit to move leg muscles, bend ankles and wiggle toes.
- Wear fitted elastic stockings or wrapped elastic bandages, but don't wear garters or knee-high hosiery.
- Elevate the feet higher than the hips when sitting for long periods.
- Elevate the foot of the bed.

DIET

No special diet.



NOTIFY OUR OFFICE IF

- You or a family member has symptoms of deep-vein thrombosis.
- The following occur during treatment:
 - Unexpected bleeding anywhere.
 - Chest pain.
 - Coughing up blood.
 - Shortness of breath.
 - Continued or increased swelling and pain, despite treatment.
- New, unexplained symptoms develop. Drugs used in treatment may produce side effects.